THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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EDITORIAL NOTES.

One more step has been taken by the Royal College of Veterinary Surgeons to enforce our rights under the Veterinary Surgeons' Act. Section 17 forbids any unregistered person using "the Title of Veterinary Surgeon or Veterinary Practitioner" and whenever any prosecution has succeeded in establishing the fact of such illegal usage to the satisfaction of the Courts conviction has followed. So far our full title has been admitted but, until this week no case has been tried to make good our claim to the sole use of the word Veterinary when used, not in conjunction with the words Surgeon or Practitioner, but in connection with other callings such as Chemist, or Shoeing-Smith.

Section 17 of the Act is very wide, and prohibits not only the use of our full title, but also "any name, title, addition, or description" stating that the person is "a Practitioner of Veterinary Surgery or of any branch thereof or is specially qualified to practice the same." In recent years quite a number of men whose trade is horse-shoeing have, in London and other towns, adopted the title of Veterinary Shoeing-Smiths, or have fixed over their business places such titles as "Veterinary Shoeing Forge." The Council, through its Solicitor, has noticed these infringements, and generally with the result that the offender has removed the illegal description. Some few persons have refused to do so, and claimed their right to use the words. The proverbial caution of the Council led them not to institute prosecutions, and some doubt existed as to whether we should be able to sustain our claims at law. It was felt, however, that this indecision could not be continued, and that we must either enforce our right by action or refrain from cautioning persons against what we considered an illegal act. This feeling culminated in orders to the Solicitor to prosecute in a number of cases, and the first action was tried on Thursday against a man for using the words on a sign-board "Veterinary Shoeing Forge." The Magistrate convicted and the defendant was fined. Of course this conviction in an inferior Court does not finally settle the question, and it remains for any bold offender to deny our position, and risk an action before another Court of first instance. Had the Royal College lost the day an appeal to a Higher Court would have been taken, and the legal interpretation of our Act been settled once for all. The conviction however is a precedent, and we may now look for bolder action against offenders in future. Next week we shall publish a report of the case in full.

Amongst our extracts will be found a summary of the regulations adopted by the representatives of the three bodies forming the Registration Committee of the new Farriers' Registration Scheme. They seem to us to be well considered, and likely to forward the interest of the trade whilst improving the art and science of farriery. The objections to the scheme are not many, and are generally based either upon a not unnatural prejudice or upon ignorance of what is being done. We are convinced that the scheme will be beneficial to horses and to the art of horse-shoeing, and we feel no fear as to its effects upon veterinary practitioners. It will in fact very soon enable the public to differentiate between veterinarians and farriers, and to quite understand that horse-shoeing and horse-doctoring are quite separate callings. Our only regret is that our profession did not see far enough ahead to adopt the word farrier solely and entirely in connection with the scheme. In a few years we should then have established a perfectly clear conception of the term throughout the kingdom. We have lost an opportunity, but we have only ourselves to blame. It is acknowledged all round that at present some confusion exists in the minds of farmers and others as to the meaning of the term farrier. If we had pinned it to horse-shoeing, and assisted the Worshipful Company of Farriers in their registration scheme, in a very few years no one owning a horse would have been so ignorant as to confuse a farrier with a veterinarian. We must make the best of our own short-sightedness, and refrain from exhibiting a dog-in-the-manger spirit which will do no good and may do us much harm.

Mr. Greaves is irrepressible, but his knowledge is not equal to his zeal for science. He favours us with "More thoughs on influenza," but he follows the Aristotlean more than Baconian methods, and modern science does not now accept the classical philosopher as a safe guide. We advise Mr. Greaves to peruse an extract which he will find on another page, that very forcibly puts the advantages of the example set up by John Hunter. The moral is, "Observe and experiment before you form hypotheses—don't guess at truth." To propound questions is easy. To ask—What is influenza? goes a very little way to a solution of the question. That can only be arrived at by careful and continuous labour which requires time, money, talent, and special training. No one is able, at present, to answer the question—if that answer is to be more than mere words. It is one of the questions which might well be enquired into when our Corporate Body decides to pay for original research. Meantime what is wanted is careful clinical observation and faithful record.

CASES AND ARTICLES.

LYMPHANGITIS,

Extract from an Essay by a Glasgow Student.

I propose in my own words and in my own style to state what I have seen and thought of the disease in a six months' practice, and an experience of about twenty-five cases.

The word "Lymphangitis" is a misnomer, and the sooner we find a F.R.C.V.S., with Latin enough to change it into something else the better, as in no single case I have seen were the lymphatics of the leg inflamed, as the name undoubtedly implies. It is also called 'Shot of Grease,' and 'Monday morning disease.' It is characterised by a sudden swelling of one or more limbs, which swelling is always preceded by and associated with a varying amount of constitutional disturbance.

History: The disease has been known in the oldest works I can lay hands on; has in fact been present since Noah gave the animals that long rest in the ark, without exercise, and is likely to be with us even after the germ theory is less over-worked than it is at present. And I am pleased when I confidently think that, despite all the preventitive treatment of the age, this is one disease we may have left us when we have the honour of subscribing ourselves M.R.C.V.S.

Causes: In a work published by a Mr. Lawrence, about the end of the eighteenth century, he confidently asserts that it is due to some influence at work when the moon is changing, and even he had a vague idea of preventitive treatment, for animals in the habit of taking lymphangitis had to be bled and get a full a dose of soft soap and resin, every time the moon was full; and if that did not help the horse, it would, as one of our London teachers said, "help the day-book." Many are the reasons given for the appearance of this disease, but the only one, I think I have seen of these is when an animal gets a chill, but even this I am a little doubtful about as this chill may only be the result of the constitutional disturbance, and not the cause. I cannot think it due to indigestion, as never seen in animals that are shy feeders or bothered with indigestion, but generally seen in greedy feeders, and I must also say I have seen it oftener in round legged horses, and horses up to the prime of life, than in better-bred flat-boned animals. Seldom seen in well-bred horses but I think oftener in horses that have a want of nervous energy, in other words, in slow, sluggish beasts who are not easily upset with anything else. An animal once attacked and not properly treated is very likely to have another attack, but when properly treated I do not think it so liable to recur. It is more often seen on a Monday or after a holiday, but why this should be I do not know.

Symptoms: Pulse is quick, frequent, hard and jerky. Respirations slightly increased, temperature from 103° to 105° F. Bowels constipated and hard. Ask the animal to move and he does so very stiffly all round, but as yet there may be no evidence of any one leg being affected. In fact in this stage one cannot tell whether we are going to have laminitis, some chest affection, or trouble in one leg only. Three hours later he moves a little stiff all round, but a decided drag in one of the limbs. In twenty-five cases I have seen, fourteen have been in front and eleven behind.

The leg affected now commences to fill, and slowly but surely fills from the inside of arm or thigh, downwards. Put your hand on the inguinal or brachial region and you will find the glands there very slightly enlarged, painful and hot. Pain continues, swelling increases, and the other symptoms are proportioned to the local mischief.

Pathology. I am afraid the pathology, like the cause, is unknown. Could we look upon the disease as a localized septicæmia the pathology were evident, for in many cases where an animal has a slight injury and poisoned wound we find all the symptoms of lymphangitis in that leg, although the manner of their appearance is different. Could we look on it as due to a want of tone in the bloodvessels we could account for all the symptoms, but in no case do we find that a deficient vascular system becomes localised in one limb. I cannot for a moment look on it as due to an inflammation of the lymphatics, as in not one case have I ever seen these glands inflamed, nor have I ever heard of them suppurating, and suppuration is the natural result of inflammation unalleviated. Further, these glands are not primarily affected, for in some cases the animal is bad for three or four hours before we notice anything the matter with the glands, and I look upon the swelling of the glands as a result of some unhealthy material circulating in that limb which affects the whole vascular and lymphatic system, or of some want of nerve force in the vascular system for the time being, and I daresay you must all have noticed that the limb swells quite irrespective of the lymphatic system, and that the swelling is continued further up the leg than the region which we are taught is controlled by the inguinal lymphatic glands.

It is a pity the lymphatics of the horse have never been *described* or we might know more about their whereabouts and their functions than we do.

One eminent Veterinary Surgeon in London looks upon this disease as primarily a nervous affection, and adopts the simple treatment of placing hot cloths across the region of the lumbar sympathetic plexus, and of course never has a case go wrong. My opinion is, that the swelling of the glands is due to the same cause as the swelling of the limbs, and is secondary to the commencement of that swelling, but about the origin of that swelling I know nothing, and willingly admit my "blessed ignorance."

Post-mortem: I am glad, gentlemen, that I have seen practice with a practitioner who has a death occasionally, as a good death is very valuable to a student—at times.

The post-mortem presents nothing very definite. The diseased limb gets considerably reduced in size two or three hours before death, and the animal un-

doubtedly dies from septic poisoning. The bowels are congested all through, and the mesenteric glands are much in the same condition as the glands in the limb. Examine the diseased limb and you find an exudation from the bloodvessels, the veins congested, their blood black in colour, and if examined twelve hours after death, already decomposition is further gone in this leg than the other. The lungs are filled with imperfectly aerated blood, but this can only be expected from the condition in which the animal is for several hours before death.

Treatment: Here we gladly leave the troubled region of changing theory for the pleasant and more profitable realms of fact and practice.

In the first stage give the animal a stimulant—nothing better I know of than six or eight ounces of good old whisky, followed at once by a copious bloodletting and a full dose of physic. Bleeding of course from the jugular in the first stage, but from the toe if swelling has taken place before the animal is seen to, and here let me remark, when blood is drawn from the toe it is most undoubtedly dark in colour. Put cold wet rug over him, and four dry ones on top of it, put animal to exercise and let him have half an hour's exercise every two hours. In the intervals let him be thoroughly hand-rubbed over the limb affected. When swelling is very considerable and painful, giving rise to sweating and hurried breathing it may be necessary to foment the leg, but this, gentlemen, I do not think should be done unless absolutely necessary, as it gives rise to a great deal of swelling which is often difficult to get away.

When the disease is not benefitted by the treatment I have mentioned, other treatment must depend on symptoms. If pulse is very frequent give diuretics, and anodynes to allay pain—chloral or opium. Have not seen any good from aconite: it gets at the symptoms only, and not the disease. When the subcutaneous tissues suppurate, open and treat antiseptically. When the swelling is so acute as to cause severe pain by pressure at hoof head, thin that structure, and if pus forms under sole, remove sole.

If you cannot learn anything from me, I am prepared to learn a lot from you. I am not wedded to one single statement contained in this paper, for the student, or even practitioner, who is too old to learn, is too old and too wise for the struggling ranks of this honourable profession.

RETENTION OF THE FŒTAL MEMBRANES IN THE COW.

By James M. Crawford, M.R.C.V.S.

I am much surprised that, along with the rapid progress that Veterinary Science is making, there should still exist such a diversity of opinion among the members of the profession, as to whether it is judicious or not, to remove these membranes from the cow.

I have known cases of disease in the cow due to the retention of the placenta, and although very much decomposed, no attempt whatever was made to remove it by the veterinary surgeon in attendance Surely he must have known that the retention of the placenta was the cause. If we wish to be successful in our treatment I think the first thing to do, if possible, is to remove the cause of the disease and not to treat the symptoms alone, or we never can have the best results from our treatment.

I have never heard an explanation advanced by a professional man, why he should oe so adverse to their removal, but should this meet the eyes of any of them who carry it into practice, they may be able to throw some light on it through the medium of *The Veterinary Record.*

If we only look at the many, and fatal diseases which follow placental retention we would never hesitate a minute in removing them. I know of no other internal derangement where we can so directly, and with impunity, assist nature to relieve herself. As to the administration of what are designated "cleansing powders" I have no faith in their causing expulsion of the placenta. I admit that we can use certain agents to prevent the absorption of septic material—causing much constitutional disturbance, but these agents are not as a rule ingredients of the so-called "cleansing powders." When a client asks you to give him some powders to make a case "clean" as they generally term it, I consider it is the better plan to inform him that you can give him powders that will prevent, to a great extent, her liability to diseases which otherwise she would be prone to contract, but that you would prefer removing the membranes at once. He may raise objection at first, but you will ultimately get your own way except on very rare occasions, and then you will have no trouble in future, in fact you will in many instances be asked to come and remove the "cleansing" from another one—at least this is my experience, and I am sure there is no district where the farmers are as a whole more predjudiced against the removal than in the district I at present reside in.

What are the diseases that are most likely to occur if the placenta is allowed to remain?

They are Septicæmia, Pyæmia. Leucorrhœa, Septic Metritis; and the results of the forcible contraction of Uterus to expel the membranes—Prolapsus Uteri or Vaginæ or possibly both. Suppose the cow is fortunate enough to escape any of the above conditions, how few are they that do not suffer inconvenience of some kind. The majority go off their food, rumination ceases, the lacteal secretion is enormously interfered with, and emaciation ensues, and it is a well-known fact that cows in this condition do not give much remuneration in the way of milk supply.

Giving these things due consideration it is hard to entertain the idea that any member of the profession should think twice about removing the retained Fœtal Membranes.

I will now give the time I choose, and the reasons I choose that time, also the operation of removing the Placenta and the precautions to be taken in doing so.

I prefer three full days after parturition. You will then have no danger of eversion of the uterus,

the os uteri having contracted to such an extent as to prevent this, but not so much as to interfere with the introduction of the hand and arm of the operator. You are not at all likely to have any hœmorrhage, you can reach nearly all the attachments; the uterus by this time being contracted a good deal; the adhesions are easier broken down, and decomposition has not taken place to such an extent as to interfere with the general health of the animal.

Exceptions to the above are when you have cases of abortion, where, as a rule, decomposition has taken place before the expulsion of the Fœtus, and you may have severe straining shortly afterwards. I have seen a cow twelve hours after aborting begin to strain severely, temp. three degrees above normal, pulse and respirations both accelerated, and cessation of rumination.

I have never hesitated in removing the cause at once, and with a dose or two, according to the severity of your case, of Tinct. Opii. and Sp. Æther nit. aa ʒii. with the addition of ♏. xii of (Fleming's Tinct. Aconite, if pulse full and strong. and attention to the general comfort of the animal, I have had them back to their normal state of health within the next twenty four hours.

Other cases worthy of mention are when you have a cow go down with Parturient Apoplexy, and Parturient Paralysis. The Placenta should at once be taken away, or your prognosis will not be favourable, more especially in the first mentioned disease.

Before proceeding to remove the placenta you should bathe the hands and arms in warm water, this prevents any re-action that might otherwise take place from bringing the cold hand and arm in contact with the passages and uterus. Lubricate the hands and arms with Carbolic Oil, it assists in their introduction, and should the operator have any broken skin, will prevent septic infection. With the aid of an assistant who will hold the tail to one side, you will then seize the part of the placenta presented to you close to the vulva with one hand, then pass the other hand gently into the uterus, and with as careful manipulation as practicable break down the adhesions at the Cotyledons. This is best done by the index finger and thumb. After complete removal of the membranes scoop out with the hands as much as you can of any fluid remaining, and to finish syringe out the cavity with a tepid solution of Carbolic Acid, one to eight of glycerine to eighty of water, or Condy' Fluid one to three of water, but I prefer a one per cent. solution of Jeyes' fluid, as it contains all the properties that are essential for the washing out of the uterus, viz., disinfectant, deodoriser, and antiseptic, besides it has a soothing effect, and a tendency to allay any irritation.

In conclusion I may state that within the last four years I have relieved a great number of cows in cases of retention of the Fœtal Membranes with very satisfactory results.

Attendance of Officials.—The revised scheme for the University of London contains a clause for the compulsory retirement of members of Council who fail to attend meetings.—Will Charter Committee please notice?

'MILK FEVER'—IS THE FLESH FIT FOR *HUMAN FOOD?*

The discussion initiated by Mr. Bowman on this subject at the last meeting of the Yorkshire Veterinary Medical Association, reminds me of nothing so much as, 'flogging a dead horse.' twice o'er. For, in the first place, if it be granted that the flesh of cows in the parturient state is fit for food, then I am certain not one in the profession can be found who will seriously contend, that because an animal in such a state is suffering from 'milk fever'—a purely nervous disease—and killed in the first or second stage, the flesh is thereby rendered unfit for consumption. And secondly because there is no need to consume such flesh at all, 'milk fever' being a curable and easily preventible disease.

For our profession, as a body, to advocate or even countenance the general adoption of the 'pole-axe' to cope with this disease, would be nothing short of a public scandal and a professional disgrace

Thom. M. M'Connell.

AN INTERESTING CASE OF COLIC,

By William J. Welsby, M.R.C.V.S.L.
West Derby, Liverpool.

On Saturday of last week I had brought to our yard, and was requested to treat, a case of Colic in a draught horse, the property of the West Derby Local Board. The horse was in continuous pain from about 9 o'clock in the morning until midnight. continously walking around his loose box, lying down, attempting to roll and then getting up again for a further perambulation. During this time, I administered (or in my absence caused to be administered) to him, at intervals Tinct. Opii. B.P. ʒvi. in ʒj. doses with Ol. Lini oj. and Spts. Terebinth ʒss. vel Spts. Ether Nit. ʒj. and Chlorodyne ʒiv. which amongst other ingredients should contain Morphia grs. xvi. Several times during the day and early part of the night I injected subcutaneously, the full doses of Sol. Morph. and Sol. Morph. and Atrop. At respective intervals I gave in ball 2 ʒvi. doses of Chloral Hydrate and 2 ʒss. doses of Chloroform Meth. suspended in a mixture of Ginger and Water. I also attempted to relieve the pain with such diffusible stimulants and Anodynes as Æther Nit., Æther Sulph. and Spts. Amm. Arom. given with Aqua Menth Pip. and Inf. Zingib, but all without success and the pain continued unabated. I trust it will not be supposed I was trying to start a drug store in the horse's stomach. but it surprised me the quantity of depressants this horse was capable of taking.

I concluded, from the symptoms—continuance of pain, pulse getting quicker, and then later thready, visible mucous membranes injected, expression of countenance very woeful—that I had a case of strangulation of the bowel to contend with. About midnight the poor horse began to be tympanitic, so I introduced the trochar and canula into the right

flank. After the withdrawal of the trochar and subsequent escape of gas, I injected down the canula into the bowel, Acid Carbolic ʒj. with Glycerine ʒiv. and Aqua Bulliens ʒij. The pain ceased *at once* and I have to-day (Wednesday) seen the horse and he is all right. On the Sunday morning about 5 o'clock, the horse started purging, a result, I then thought of the Aloes Barb ʒvi. he had had the day previous, but after about three copious discharges it entirely ceased for twenty-four hours, to re-start on the Monday morning with increased vigour. Was this initial purgation caused by the ʒiv. Glycerine? I must apologise for trespassing so far on your valuable space, and with what I fear is but a very ordinary case, trusting your readers will derive as much pleasure in reading as I have in writing this "ungarnished tale."

A Few More Thoughts on Influenza.

WHAT IS IT?

By Thos. Greaves, F.R.C.V.S.

In my former paper on this subject I propounded the above question; to my thinking it has not yet been satisfactorily answered. I said that it was attributable to atmospheric influence, but what that atmospheric influence exactly is does not appear. That it is a pestilence of a malignant and subtle nature is admitted, but whether it is a microbe floating in the air, generated spontaneously, or emanates from different animals affected, is not, to my mind, at all clear: or whether it is some poisonous emanations out of the earth, which permeate the interstices in the air and is carried by currents all over the surface of the land, are matters not yet clearly explained, I had hoped our scientists would have defined what the atmospheric influence really is. We find the horses affected in one locality to be far more virulently attacked than horses in other localities; I think that this goes a long way to prove that the atmosphere is surcharged more in one place than in another. We find horses that have not been out of the stables for weeks or months attacked and have it in a virulent form, notwithstanding they have not been near other horses, or any other horses been near them—I am now speaking of this one form of Influenza, commonly called Pink Eye, where we have accelerated, feeble pulse, cold ears, eyes closed, the temperature increased, loss of appetite, swollen limbs and sheath, and stiffness and weakness.

We may have Influenza at all seasons of the year. I have seen numbers of outbreaks during the last 56 years, but what I want to know is what is the true cause of the special affection called Pink Eye. It affects horses in clean, sweet, well ventilated stables. I do not find that any kind of disinfectant is of any avail, but I feel pretty clear on this point, that horses that have been living sometime in ill-ventilated stables, breathing an atmosphere impregnated with foul emanation from drains, are much more liable to contract the disease, and when attacked succumb sooner than others. During this winter we have been visited by this epizootic, which in places has been very destructive of life, during the winter we have had *intensely cold foggy weather, giving the horses deathly chills*, which no doubt added greatly to the increased death rate. We know it is a fact if we take a mouse and drop a few drops of ether upon it, it soon dies, owing to rapid evaporation robbing it of its caloric. If we wrap a blanket saturated with ether round a man, the effect is the same, the chill is so great that he will be shortly deprived of that portion of vital heat essential to existence. No diseased blood, no pink-eye, but simply direct effect of cold, same as many horses this winter. The post-mortem shows exactly the same conditions in each case, the black blood is heaped up in the ventricles and auricles, as if endosmosis and exosmosis had been entirely suspended.

I am about instituting some experiments with pure oxygen mixed in the air they breathe, to stimulate exosmosis and endosmosis.

VETERINARY SOCIETIES.

SCOTTISH METROPOLITAN V.M.S.

The Annual Meeting and Dinner will he held in The London Hotel, St. Andrew Square, Edinburgh, on Wednesday, 25th February, at 2.15 p.m. prompt.

Business.

Retirement of Mr. Thompson as President in favour of Mr. Clark, elected President for this year, and of the Secretary in favour of Mr Moir.

The President's Inaugural Address.

At the Dinner, which will take place immediately after the Meeting is over, "a Testimonial, contributed by Members and Friends of the Society, will be presented by Mr. Thompson to the retiring Secretary."

R. Rutherford, *Hon. Sec.*

NATIONAL REGISTRATION OF FARRIERS OR SHOEING SMITHS.

Registration Committee.

Chairman:—The Right Hon. the Earl of Ravensworth (President of the Royal Agricultural Society of England).

Vice-Chairman:—Barnes Wimbush, Esq., M.A. (Master of the Worshipful Company of Farriers).

Farriers' Company—
Mr. H. Montagu, F.S.A., Mr. F. C. Bayard, L.L.M., Mr. Sidney Smith, Mr. H. Stewart, Mr. J. R. Cooper, Mr. Nathaniel L. Cohen, and Professor Pritchard.

Royal Agricultural Society—
Sir John H. Thorold Bart., Sir Jacob Wilson, Mr. Charles Clay, Mr. Walter Gilbey, and Mr. Ernest Clarke.

Royal College of Veterinary Surgeons—
Professor Axe, Dr. G. Fleming, C.B., Sir H. Simpson, J.P. Mr. F. W. Wragg, Mr. J. Roalfe Cox, and Mr. J. D. Barford

Secretary:—Wynne E. Baxter, J.P., D.L.,
9 Laurence Pountney Hill, Cannon Street, London, E.C.

The Worshipful Company of Farriers (assisted by the Royal Agricultural Society of England, and the Royal College of Veterinary Surgeons) have inaugurated a Scheme for the NATIONAL REGISTRATION of FARRIERS or SHOEING SMITHS, the objects being to Examine, Register, Instruct, and Assist in Apprenticing persons connected or to be connected with the trade of Farriers.

At the Meeting held at the Mansion House, under the Presidency of the Lord Mayor, on the 2nd June, 1890, resolutions in support of the movement were carried with acclamation. The Committee for carrying out the Scheme is composed of representatives from the three bodies as above.

It is intended that every facility should be given to Farriers who are already established in the trade, and Clause 28 of the Scheme provides that "Masters or Journeymen established in the trade, prior to the date from which the Register is opened, should not necessarily be required to undergo an examination before registration, but such Farriers may be registered on satisfactory proof to the Worshipful Company of their fitness, according to the circumstances of the case."

All Smiths while on the Register will be entitled to use the letters "R.S.S." after their names, and it is anticipated that the large owners of horses and the public generally will in the future give the preference to Registered Shoeing Smiths over those not registered.

A Certificate of Registration, bearing the Corporate Seal of the Farriers Company, and signed by the Master and Clerk, will be presented to each Registered Shoeing Smith.

A Register of Farriers or Shoeing Smiths is being prepared, and the first List will be published in April, 1891, and will be repeated annually. Copies of this List, when published, can be obtained on application to the Secretary.

All applicants for Registration must be 23 years of age at least, and have had 5 years' previous practical experience in the trade.

Applications must be accompanied by testimonials from at least two gentlemen who have habitually employed the applicants for the Shoeing of Horses for two years immediately previous to the application.

All Winners of Prizes, and Commended Competitors at Horse Shoeing Competitions held at the Shows of the Royal Agricultural Society or any County Agricultural Society in England, will be admitted to the Register without examination on the necessary application being made to the Secretary in the prescribed form, and Secretaries of the County Agricultural Societies who have held such Competitions are requested to assist the applicant in filling up the application, and by bringing the objects of the Scheme before the notice of each Competitor.

The fees payable on admission to the Register are 20/- for Masters. For Journeymen no fee is payable in the case of applications received before the 31st day of March, 1891, after which date all applicants will be required to pass an Examination, the fee for which will be 10/- for Masters, and 5/- for Journeymen, in addition to the Registration Fee of 20/- for Masters, and 5/- for Journeymen (which will then be payable).

The number of applications for Registration received up to the 31st day of December, 1890, was 775. Since then further applications have been received.

For the guidance of Agricultural Societies who may establish Horse-Shoeing Competitions the following Rules are suggested by the Registration Committee :—

Each Competitor will be required to make a fore and hind shoe out of the new iron provided by the Society, and to take off a fore and hind shoe and put the new ones on.

[The following sizes of S. C. Crown Iron will be supplied ;—$\frac{3}{4}$ by $\frac{1}{2}$, 1 by $\frac{1}{2}$, $1\frac{1}{4}$ by $\frac{1}{2}$, and $1\frac{1}{4}$ by $\frac{5}{8}$. The holes in the anvils will be $1\frac{1}{4}$ square, and $\frac{5}{8}$ round.

In awarding the prizes, the time taken in forging and fitting of the Shoe will be considered by the Judges.

Each Condidate will also be required to undergo an Examination by the Judges, satisfying them that he possesses an adequate knowledge of the construction of the horse's foot.

Competitors are recommended to study Prof. Brown's pamphlet on the Structure of "The Horse's Foot and the Principles of Shoeing." Published by Mr. John Murray, 50*a*, Albemarle St., W. Price 6d.

A Competitor must bring his own tools and provide his own striker if he requires one ; but the Society will provide forge, anvil, iron, nails, and fuel.

Not less than two Judges to be appointed.

At least two of the Judges to be duly qualified Veterinary Surgeons.

The Judges to submit Competitors to an examination both theoretical and practical.

No Competitor to receive a prize or certificate unless he completely satisfies the Judges that he possesses an adequate knowledge of the construction of the horse's foot.

A model form of Judges' Book has been prepared by the Registration Committee.

Copies of this Book will be supplied to the Society free of charge by the Registration Committee.

Whilst not desiring to fetter the opinion of the Judges as to the scale of points indicated above, the Registration Committee would prefer that, as far as possible, the scale should be followed with a view of securing uniformity of practice throughout the country.

It is suggested that the Judges should be elected as far as possible from places beyond the limits of the area from which the Competitors are likely to come.

EXTRACTS AND NOTES.

JOHN HUNTER'S EXAMPLE.

Mr. Jonathan Hutchinson, F.R.S., delivered on Saturday the fifty-fifth oration, dedicated to the memory of John Hunter, at the Royal College of Surgeons, Lincoln's Inn Fields.

He said it might seem a bold thing to seriously compare Hunter with Aristotle. Unquestionably our countryman was far behind the Greek in the breadth of his attainments and sympathies. While the one carried habits of impartial investigation into all departments of knowledge, the other, when he left his own domain, sometimes exhibited only the strength of prejudice. In spite, however, of those differences, it might be reasonably alleged that, when they met on common ground, the two showed similar habits of thought, and intellectual powers not very unequal. Both were systematic and enthusiastic zoologists in times when the study of zoology was the pursuit of very few. Both saw clearly that advance in natural-history knowledge could be made only by the collection of facts, and, realising that such advance was well worth the effort, both set themselves zealously to work. There

was, however, one characteristic in which they greatly differed. Aristotle earned for himself in Plato's school the cognomen of the "Reader" on account of his appetite for books. Hunter acknowledged that he did not read much, and it might well be believed. His writings were all from his own observation.

It had been said repeatedly that the source of Hunter's success lay in his combination in one person of the qualities of thinker and observer. Undoubtedly he did combine them in a way which few others had ever done. Let them adopt Hunter's methods, and take their students more directly to Nature herself. Let their education become more objective, and concern itself with things rather than books. Let them renounce utterly all remnants of the methods by which the pedagogues of the past so often succeeded in making the very name of education distasteful. Let them trust to the intrinsic attractions of their subjects, and resort as little as possible to compulsion in respect to methods of study. Let their examination become more objective and less merely verbal, and the examiner would soon be recognised as the friend and not the torturer of the candidate. Above all, let them avoid the error of trying to make all minds fit into one mould.

WHAT KOCH'S DISCOVERY REALLY IS.

The goal set before himself by Koch was one very different from the "protective" methods hitherto in use. Jenner had introduced to the world a method of preventing small-pox, which consisted in giving to a person an attack of a mild disease, analogous to, and probably identical with, small-pox. This artificially imparted disease protected against small-pox more or less completely, small-pox being a disease which rarely recurs in the same individual, and the preventive disease (vaccinia) having the same characteristic. The remarkable discoveries which were made by the great genius Pasteur in this realm of science depended for their success in protecting animals against certain diseases on the power to attenuate the virus of those diseases, to effect which he employed various means. The attenuated virus was sufficient, when inoculated on an animal, to give it a mild attack of the disease; and as it was one which did not usually recur, this one mild attack was found sufficient to protect the animal against a subsequent attack. The reality of the protection which Pasteur had been able to secure was indubitable, but it was not permanent in the case of all diseases. He had succeeded in attenuating the virus of fowl cholera by simply keeping it exposed to the air, while protected from other organisms. Inoculation with this attenuated virus was protective against the strongest virus. On March 21st, 1881, Pasteur, Chamberland, and Roux presented a memoir to the Academy of Sciences in Paris, showing how, by cultivating anthrax bacilli at 42° to 43° C. for a certain time, the culture might be inoculated on animals without serious danger, and afford them protection against the strongest virus. The animals became feverish and ill, but not seriously so, except in a small proportion of cases. These great discoveries of Pasteur had been further worked out by others on the same lines, and "vaccines" had been obtained capable of protecting against several diseases. The duration of the protection obtained against rabies had been experimentally proved to be at least five or six years, as some of Pasteur's protected dogs have resisted repeated efforts to infect them either by subcutaneous, intravenous, or subdural inoculation within that period. The anti-rabic method differed from all the others in that there was no evidence whatever of a morbid condition being produced in either man or animals during the production of the refractory state.

Koch's anti-tubercular method was something different from all these. He did not endeavour to protect against tuberculosis by giving a mild attack of that disease; nor did he seek to cure the disease by injecting a different form of bacillus, as had been done successfully by Emmerich, who injected the streptococcus of erysipelas as a protective against anthrax; and by Pawlowski, who successfully injected the pneumococcus of Friedländer with the same object. Koch injected a liquid, the nature of which had not been made known by him, subcutaneously, and produced an intense reaction thereby but he certainly did not give the patient a mild attack of tuberculosis. The liquid contained no specific organism, certainly no living tubercle bacilli or their spores attenuated or other. It undoubtedly did find out and produce a most remarkable series of changes in living tubercular tissue whereever it was visible, and there was every reason to believe that in other situations withdrawn from view the changes produced were similar to those seen in lupus, tubercular joints, and other more or less external forms of tuberculosis.

It seemed to be the general idea that Koch's discoveries on this subject were limited to having found out a substance for which he claims the power of destroying living tubercular tissue. But he has done far more than this. In the first place, in his address to the International Medical Congress he claimed not to have discovered such "a substance, but "substances" which are capable of checking the growth of the tubercle bacillus not only in the test-tube, but also in the animal body, without injury to the latter The importance of this fact, that Koch has discovered more than one substance endowed with this property, should not be overlooked. For we have thus the possibility of utilising other substances than that which is known as "Koch's lymph," and possibly with as good or better effects. But another great fact has been so overshadowed by the curative aspect of the discovery as to have been lost sight of—namely, the fact that Koch has been able to render animals refractory to inoculation with virulent tubercle. This discovery would have immortalised any other man; but seeing how Koch has also discovered how to stamp out tuberculosis in animals suffering from that disease, and that his method was being employed with a view to save human beings suf-

fering from the same disease, people have quite lost sight of this other great discovery. We may happily congratulate ourselves that Koch has declared that his "work is not yet finished," and hope that other great discoveries will result from his continued activity. The power of successfully "vaccinating" animals so as to render them refractory to subsequent inoculation with tubercle has has also been claimed by Richet, of Paris. He had obtained immunity by means of injections of culture media of tubercle bacilli which had been sterilised by heating above 100° C. From two observers, working manifestly in different ways, we had thus obtained the same great result, the possibility of rendering animals refractory to inoculated tubercle.*—*The Lancet.*

* From a lecture delivered by Dr. Hime before the Bradford Medico-Chirurgical Society.

ON THE ETIOLOGY OF TETANUS.

In the last number of the *Annales de l'Institut Pasteur* there appears (from the Bacteriological Laboratory of Val-de-Grâce) a most interesting paper on tetanus by Drs. Vaillard and Vincent, which appears to throw very considerable light on the subject of tetanus, and to clear up a number of points and observations that have hitherto been enshrouded in obscurity. After describing the organism, and identifying it with that already made familiar through the papers of recent writers, the authors give it as their firm opinion that in cases of artificial inoculation of pure cultures it is always the poison introduced along with the bacillus, and not the organism itself, that acts upon the animal. This indeed seems to be probable, as they are able to prove that almost inconceivably minute doses of this poison, which they compare with snake poison, are quite sufficient to produce all the symptoms of most acute tetanus; in fact, it was almost impossible, from some of the cultures that they obtained, to administer a dose that was not lethal.

An exceedingly interesting feature brought out in the course of their work is that in no case was the poison developed as soon as the organism began to grow; in fact, gelatine cultures of the tetanus bacillus were never capable of producing toxic symptoms until liquefaction of the gelatine had commenced, when spores were demonstrated to have been formed, and when the peculiar disagreeable odour so characteristic of tetanus cultures had become perceptible. They associate both the odour and the peptonising power with the formation of the poison in the cultures. That it was not due merely to the presence of the spores that the material was poisonous they demonstrated by heating their cultures to a temperature of 62° C. for a short time (a temperature which is quite incapable of interfering with the vitality of the spores), when it was found that cultures so heated and introduced by inoculation into a rabbit or a guinea-pig failed to produce any tetanus, thus proving that although the spores are not killed the poison had been destroyed by the heat. The spores were proved to be living by making fresh cultures from them in artificial media; after a time they grew luxuriantly, and if left to grow for eight or ten days produced another crop of the poison. By simply washing away the poison from the spores with distilled water they also obtained similar results, for, although the spores could still develop and form the specific poison in artificial media, they were, when inoculated, incapable of giving rise to any symptoms of tetanus From the reaction to heat of a substance they were able to separate, and from its resemblance to the diastases in other respects, they conclude that they have obtained from tetanus cultures the true tetanus poison, a poison, however, that cannot be formed by the tetanus bacillus in healthy tissues. The micro-organisms are here so rapidly attacked by the leucocytes that they are rendered *hors de combat* before they have time to form their poison.

It has for long been well known that the tetanus bacillus could not develop in the tissues except, apparently, in the presence of other organisms, and the suggestion is offered that these other organisms act in one of two ways: they either paralyse the activity of the leucocytes, or they draw off, as it were, their attention and activity from the tetanus bacillus, thus allowing it sufficient time to develop its characteristic products. It is interesting to note that Drs. Vaillard and Vincent consider that in many respects the tetanus bacillus is extremely like the diphtheria bacillus, the method of action on and in the organism being essentially the same in the two cases, the above factors in all probability playing a part in diphtheria much as in the case of tetanus; and it is evident that in studying the one poison much light may be thrown on the other. One question appears to be set at rest, and that is, as regards tetanus and diphtheria, the ptomaines have had their day, whatever may become of the products of other organisms. It may be accepted that here, at any rate, we have some subtle poison which, although it has not yet been actually separated, has been so far isolated that it may be taken as proved that it is not an alkaloid or basic poison. —*The Lancet.*

ABERDEENSHIRE BREEDERS AND THE BOARD OF AGRICULTURE.

The Local Authority of the county of Aberdeen met in Aberdeen on Friday 13th inst.—Mr. A. M. Gordon, of Newton, presiding. A long discussion then took place on the action of the Board of Agriculture in scheduling the whole county of Aberdeen, and thus bringing the cattle trade of the district to a practical deadlock.

The CHAIRMAN, after going over the steps which they had taken, so far without success, to have the area of the scheduled district restricted, said it seemed to him exceedingly strange that, whereas in the county of Perth, where they slaughtered thirty-three cattle on account of pleuro, and in Forfarshire

where there were several centres of disease, they were allowed to go free—to arrange matters at the present moment as might seem best to them, they in Aberdeen, who had spent time, money, and trouble to the utmost of their ability to restrict this disease, were tied up and not allowed to do any business whatever.

The Marquis of HUNTLY said that, on the Friday following the day on which he put the question regarding the matter in the House of Lords, he met Mr. Lumsden (the clerk) in London, and arranged with the Board of Agriculture that they should see them on the following Monday. He went further with Mr. Chaplin. He had an interview with him, and said to him—'I could not believe if there was in your own large county of Lincoln an outbreak in the southern division, you would permit the scheduling of the whole county of Lincoln for the purposes of the Act; and, again, that if at Halifax, in the West Riding of Yorkshire, there was an outbreak the whole of Yorkshire would be scheduled.' Practically, that was what was being done in Aberdeenshire. They supposed there was disease lurking in a certain district, and in consequence of that the whole of that great county was suffering. Among the parts thus suffering were parts where there never had been pleuro, and never a chance of pleuro, and breeders and dealers, he thought, had been put to a very great hardship and were suffering in a way which was most cruel. He would like to read them part of a long letter he had received from Mr. Chaplin:—'But what is the position, for instance, in Aberdeen? Within the scheduled district there is no restriction on the holding of their market. They are free to hold it, and everybody is free to send there, although it is true they cannot leave the scheduled district. Why do I decline to give the animals attending that sale special licences to go beyond it? Because the county has been widely infected with the disease, and because among *numerous entries for the sale* I find cattle from localities in the *immediate* vicinity of places where there may have been outbreaks of the disease. It is impossible for any human being (however closely you may make inquiries) to say that some of these animals so entered may not have been in contact with the diseased animals themselves or with others that have been so. If they have they are liable to take the seeds of the disease with them to the sale, and to spread it among all the animals there. You know how insidious it is—for how long a period it frequently lies dormant—and I really cannot conceive anything more likely to defeat the whole object of the Order than to grant licences right and left to animals under such circumstances attending such sales. I have done all I can by intimating our willingness to grant licences to the breeders of animals on particular premises; and although this very probably would not be much use, if animals from a sale could be licensed as you wish, yet I am under the impression that, if there is the demand which you indicate, means will be very shortly found both to sell and purchase privately, when it is found that licenses cannot be given to animals which are held to have been exposed to the risk of infection under the circumstances which I have described. I regret the inconvenience and loss as much as you do, but I see no escape from the position if this question is to be dealt with in earnest and the disease is to be conquered. And I would rather withdraw the Order altogether (which in that case would be a dead letter and useless) than sanction licences wholesale as I am pressed to do at present. Look at the experience of Holland. There they succeeded, but from their scheduled districts no animals were ever allowed to pass under any circumstances whatever. We have made already a marked impression on the disease. Great numbers have been slaughtered at the cost of the Exchequer, and now the time has come when stringent restrictions upon movement are imperative. I have put them off till what I hoped was the most convenient period of the year, during the winter months, and they will not, of course be permanent. We have practically, I think, confined the disease to four principal centres, of which Edinburgh and Aberdeen are two, and for its final extinction in those localities restrictions there must be for a time, however unpleasant they are.' The Chairman had pointed out Forfarshire, Perthshire, and Fifeshire, which had much greater reason to be wholly scheduled than the county of Aberdeen. Mr. Chaplin's idea that they would be able to get out of the difficulty by applying for licences for particular animals could not be carried out. He pointed to the hardship that was being inflicted on many districts in this county—Upper Donside and Deeside, where pleuro, except in one single instance, was never known or heard of for generations. There was no suspicion that any cattle in these districts had been in connection with pleuro. The farmers there were accustomed to sell their store cattle in spring, and send them over the hills into Perthshire, but they could not get them sent now for any reason except, in his opinion, the ignorance of the people who advised Mr. Chaplin. The sooner a strong expression of opinion emanated from the breeders in the north—that these advisers did not know what they were talking about, the better.—*North British Agriculturist.*

HOW GALLS GROW.

At a recent meeting of the Pharmaceutical Society Professor Trail, of Aberdeen, spoke on the subject of galls, and we take the following from a report in *The Chemist and Druggist.*

There are over a hundred different kinds of galls. They grow chiefly on the oak; but comparatively few are found in commerce, because it is the few only that contain a sufficient amount of tannic and gallic acids to make their collecton profitable. Still, nearly all contain these acids. Chinese galls are formed by a different group of insects from those of the oak. As to oak galls, nearly one hundred kinds are described, and they are mostly formed by the puncture of the gall-fly, a species of hymenoptera belonging to the Canipedæ. A few, however, are produced by gall-midges—a two-winged insect, like the mosquito. It is at the end of spring or in May that the leaves of the trees are punctured by the

insects. The catkin of the oak is also touched, the galls formed being like red currants, and are soft, spongy, and sappy; but generally galls become hard, and in the centre is found the grub or larva, of the insect in a single cavity. That applies in some cases; it is different in the oak-apple, where there is a number of holes, each with its grub. These grubs it is which make the galls grow. Unhappily other insects find a lodgment for their grubs in the galls, and these feed upon the substance, and do not assist in the growth, while there are also parasites which destroy the gall-grub. One peculiar thing about the gall-fly is that it is a subject of dimorphism, that is, there are two kinds of the same species, one producing galls in the spring, the other in the autumn. The galls are dissimilar, and so are the larvæ—facts which have given rise to a great deal of confusion. There are ten or twelve British species which are known to be dimorphic. Generally it may be said that each fly, each tree, and each season gives rise to its own kind of gall, and even the depth of the puncture determines the nature of the gall.

Chinese galls differ very materially from oak galls. The insect which praduces them is an aphia, or green fly, which attacks the rhus and other plants. Unlike the gall-fly of Europe, it not only deposits its eggs in the puncture, but it gets inside the gall itself, and continues to live on the juice of the plant as long as life is given to it; and that is why the interior of Chinese galls contains such a profusion of insect remains.

JOHN HUNTER'S LEGACY.

The exceedingly interesting address delivered on Saturday by Mr. Jonathan Hutchinson, in the theatre of the Royal College of Surgeons, on the life of John Hunter and its lessons, was throughout one of which its subject would without question have thoroughly approved. His approval would have extended to the personal laudation, for his belief in himself and in his indispensability for his own work was as complete as it was well founded. "When I am gone, you will not easily find another John Hunter," was not arrogance, because it was true. If Bacon was virtually the first to lay down the lines on which science ought to be advanced *en masse*, Hunter was the father of their practical and consistent application; and the race of his descendants is of necessity at an end. No longer is it possible, never has it been possible since his time, and never will it be again, for a naturalist, medical or otherwise, to grasp the whole of his science, as was possible, and only just possible, to Hunter. No doubt there are giants in these days, as well as in those, and there will be giants in the days to come; but science has been so infinitely divided and subdivided, and more especially physiological science, that for one mind to seize it requires qualities that are not merely gigantic, but superhuman. Nor is it by any means certain that the advantages of accuracy and minuteness due to specialism are all clear gain. When each generation of specialists has said its last word, and all that is knowable of nature is known, what human mind will be able to co-ordinate the mass, to recognise harmonies, proportions, and mutual bearings, and to see nature as a whole? Three pairs of eyes, one examining a foot, another a hand, and another a cheek, no more see the whole statue than if they were blind. As the saying goes, we cannot see the wood for the trees.

This, however, was not the lesson which the reader of the Hunterian oration drew from the life of the father of all subsequent collectors and observers, as its practical legacy; nor fortunately, is it the principal one. If it were, collectors and observers might be tempted to sit down with folded hands, or to take refuge in libraries, where they might hope to learn so much from other observers, from the open fields of nature where the minutest corner menaces a man with occupation for his lifetime. Let them remember that Hunter, like those who followed immediately in his footsteps, was not the offspring of libraries and examinations. He observed for himself; he thought for himself; and—strange to say—with his and such like examples in the recollection of his country, and with such proof of the signal success of his method of ceaseless self-education—we treat his memory and his method as if they were awful warnings. Specialism is no doubt unavoidable; but it has its evil side, and we do our utmost to intensify that side by training our students of science with a direct view to specialism, instead of educating them to be as little of specialists as contemporary conditions allow. Direct, objective, original observation should precede book-work, according to Hunter's golden aphorism that "Life precedes and causes organization, and not organization life;" we begin with the book-work—and there, except in very rare and exceptional cases, we shall find, in time, that we end. Before we reach that pass, it will be well if the first duty of an examiner is recognised as consisting in measuring a candidate's innate desire for knowledge, as evidenced by his capacity for original observation in his self-chosen field. Anybody who is not a dunce, and most of those who are, can cram anything; and those who are distinctly not dunces risk being smothered in the process.

But how, then, are persons without the innate scientific bias, which is nothing less than the instinct for observation, to be trained at all? If natural genius be wanting in the community, as it may be for generations together, we must have training, unless science is to stand still. We think that Hunter would have answered, as Mr. Hutchinson clearly enough suggests, in the words of a famous answer to another question-begging remark—"Je n'en vois pas la nécessité." Once more, life must precede organization. If the living genius be wanting, training will not give it; if it be present, training—save of the most delicate and congenial kind—will kill it, unless it be extraordinarily strong. Probably more or less of the right material is always with us; at any rate, in sufficient measure for us to give ourselves a fair chance of developing it. And the practical conclusion is as clear as it is almost universally ignored. Give it encouragement to develop itself in its own way. Do not tie it up in the formulæ of red tape and specialism. Examine it in the results of original observation—not in the effects of a lecture hall, or crammers' classroom; in note-books and compendiums. We "may

not easily find another John Hunter;" but we shall make some slight provision for the breadth of mind and study which specialism, with all its benefits, is gradually exterminating in all departments of knowledge.—*The Globe.*

THE FITZ-WYGRAM PRIZES.

Lt. General Sir F. Fitz-Wygram offers for 1891—his usual Veterinary Prizes. The conditions will be much the same as last year.

Leigh Park. *Feb. 16th*, 1891.

A "John Steel" Memorial.

An influential Committee is being formed to meet the general desire for some Memorial to Profestor Steel. It is expected that a meeting for the purpose of organising an appeal to the profession will be held very shortly in London.

Koch's Fluid in Veterinary Practice.

The value of this material as an aid to diagoosis is likely soon to be arrived at in this country as the Royal College of Veterinary Surgeons has now obtained a supply. The fluid was obtained by Sir Henry Simpson through the influence of H.R.H. Prince Christian and is to be offered to each of the Veterinary Schools for trial. The experiments will be carried out systematically for the Council, and a pecuniary grant will be made to each experimenter out of the funds of the Body Corporate. It is to be hoped its diagnostic value in bovine practice may be shown and another weapon thus added to our armoury of preventive agents. Probably not more than a few weeks will be necessary to clear up the Veterinary value of this remarkable fluid.

Pig Feeding—Barley versus Maize Meal.

Professor Henry, the well-known Principal of the Wisconsin Experimental Station, has just completed a series of interesting experiments in the feeding of pigs. The purpose of the experiment was to determine the value of barley in comparison with corn for hog feeding. In the first trial ten hogs, 14 months old, were divided into two lots of five each. To the first lot were fed barley meal, while the second received corn meal. The experiment continued eight weeks, during which time the first lot of hogs consumed 2,832 lb. of barley meal, and gained 601 lb. In the same time the second lot of hogs consumed 3,100 lb. of corn meal, and gained 713 lb. From this we find that Lot 1 required 471 lb. of barley meal for 100 lb. gain. Lot 2 required 435 lb, of corn meal for 100 lb. gain. This shows that it required 36 lb., or 8 per cent. more barley meal than corn meal to produce 100 of gain. In this experiment both feeds were soaked with water. It was found that it required about 3 lb. of water to properly soak 1 lb. of barley meal, while 1 lb. of corn meal required about 2 lb. of water. The hogs fed on barley meal consumed 30 lb. of water daily with the feed, while the hogs on corn meal consumed 22 lb. daily. Even with this large amount of water in the feed the barley hogs drank 2 lb. extra, daily, from a separate trough, while the corn meal hogs drank but three-fourths of a lb.—*The Farmer and Stock-breeder.*

Diphtheria in Salford.

Mr. Paget, the medical officer of health for Salford, has prepared a report upon the increased prevalence of diphtheria in that borough last year, and even at the present time it is far from having disappeared. He speaks very cautiously as to the actual causation, but exonerates the milk supplies from any suspicion of being concerned in it. He thinks the schools may have contributed to the spread of it after it was established, and he more than hints at the possibility of a polluted soil by the privy-midden system, &c., as an important factor to be considered in connection with it.

The Diagnosis of Bovine Tuberculosis.

The German Imperial Office of Health is—says the Beriin Correspondent of *The Lancet*—testing the value of Koch's fluid as a means of diagnosing tuberculosis in cattle. The result or the preliminary experiments was favourable.

CORRESPONDENCE.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

REGISTRATION OF FARRIERS.

SIR,

It has been to me a matter of surprise that country Veterinary Surgeons not only seem to be indifferent to the Registration of Farriers scheme, but that some should be found to actually applaud it. Whatever good Registration may do to the Horse-shoer it will certainly be disastrous to the Veterinary Surgeon practising in the country districts. I do not know what Mr. Trigger's experience may be, but I have lived in three widely separated parts of the United Kingdom, and in each of them the farmers for the most part considered the term Farrier as synonymous with Veterinary Surgeon, or at least as meaning a person skilled in the diseases of animals. They have the verb to Farry, and speak about having such an animal "farried;" sometimes wondering whether she is worth "farrying." I nearly offended a new client once by saying when asked by him if I was the Farrier—"Well no, I am the Veterinary Surgeon." The old man thought that I was "having him on." A blacksmith showed me one of the cards referred to in Mr. Blakeway's letter and added, apologetically, that he did not intend to have anything to do with it. He evidently thought that being registered as a Farrier would entitle him to oppose me. This being so it will be found that the Registered Farrier, when exercising his calling in country places, will add horse and cattle doctoring to his other duties, as the country smith too often does now, and it will be no small

help to him in getting practice that he holds a certificate showing that he is proficient in Farriery, which to most of his neighbours means the medical and surgical treatment of sick animals. If I had a forge I should certainly adopt Mr. Blakeway's plan and never employ a registered man. It is of course highly necessary to have proficient men to shoe horses, and it may conduce to that end to examine them and have them registered, but let them be called Horse-shoers or Shoeing-smiths, the use of the word Farrier is to my thinking unnecessary and, for the reason given above, a grave mistake.

Yours, &c.,
WM. R. DAVIS.

VETERINARY SURGEONS' FEES.

DEAR EDITOR,

I am sure, that the report of the fees offered to Veterinary Surgeons by the Ely County Council will come as a surprise to the young men in the profession, and it will be a great difficulty for them to know how to start life on such a small sum as 5/- per diem and 3d. per mile for travelling expenses half-rate of hansom cab in London, and just enough to pay a groom in the country for driving, leaving the jobmaster's charges to be deducted from the 5/-. The Veterinary Surgeon of the present day has a wife and family perhaps, but I am quite sure that his children will never be able to take their degrees at the London School; as the fees demanded and the expenses of living will be far too much for 5/- per day. I should think it would be a difficult matter for a Veterinary Surgeon to keep up an appearance as good as an ordinary groom on such an income, and that he will always have to consider himself below a Coachman, who would not think of working at that price. I trust that these fees will be considered by men like myself who have not a few thousand pounds to put at interest to add to their income derived from the Veterinary profession, but have adopted these means to earn their daily bread, and should they live to reach the alloted time of man's life, will have to retire into the Workhouse and be buried at the expense of the Parish—if their earnings do not exceed this.

In conclusion I trust that these fees will be resented by the members of the profession so as not to lower their rate of pay beyond that of an ordinary shoe-smith.

Yours faithfully,
LIVE AND LET LIVE.

ETIQUETTE.

It was with much interest I perused the article by Mr. Rogers and more recently that by Mr. Maller on the above subject.

Personal though the former may appear, yet I consider if such petty conduct was a little oftener ventilated in the pages of your valuable paper its effect might enable right-thinking men to see the shallowness of such a course, and might show to them that this seeming weakness on some side is likely to lower the profession in the estimation of the public.

Having met with some instances of this kind I would respectfully beg to enumerate a few of them, and my remarks refer to the second kind of practitioner described by Mr. Rogers, viz., he "who has reached the top of the ladder and two or three rungs down the other side."

I have been qualified for a number of years and am in practice, not in my native town, but in an adjoining one. In the former there are three Veterinary Surgeons, two of these are local gentlemen and the third I may term "a foreigner." Since I entered the Veterinary profession this latter practitioner could not see his way to recognise me, but on hearing I was commenced in an adjoining town inside his district, he strongly recommended to me a town at a distance, his reason being obvious.

It is usual for Veterinary Surgeons in this part of the country to attend all local horse fairs, sometimes it being remunerative, at times not so. I was requested to examine a horse recently, and on my rejecting him the dealer went into the usual frame of mind. At a short distance the latter practitioner was examining another horse, and on the dealer discrediting my opinion to him and requesting his services, his usually sedate countenance lit up with a glow of infinite satisfaction, and with a pleased smile he readily exclaimed "Awl dae that mon," thereupon gave a directly opposite opinion and demanded his fee, but *mirabile dictu*, the dealer walked away. I can say this is not the first occasion he has treated professional brethren to a display of his ill-concealed jealousy. It seems almost incredible that an aged professional man hailing from another country would be inclined to display such animosity towards, and endeavour to injure a young man, a native of the place, and one who has never to his knowledge done him an injury, yet such is the case.

I would say surely we have enough to contend with in the shape of competing quacks, etc., without our desiring to exhibit differences amongst ourselves. From such unprofessional conduct certain results are likely to follow. It will, by exhibiting such petty meanness, in the end only lower the estimation of the man, and by eagerly giving a contrary opinion it may in some cases injure another practitioner, and will certainly lay us open, as a profession, to the unfavourable criticism of the public.

MARATHON.

REGISTRATION OF SHOEING-SMITHS.

SIR,

I was much surprised at Mr. Trigger's letter. He has lately been elected a Member of the Council of the R.C.V.S., and the ignorance he shows of the doings of that body with regard to the above subject is deplorable. He says "he supposes the Smiths will have to pass an examination," at the same time he must know, or should know, if he has attended the Council meetings and not been asleep during them; that the circular I complained of in my former letter, was sent round asking all Smiths to become registered before the end of March *without any examinations*.

Mr. T. is like many other Vets., he seems to have a great dread of "a Court of Law." If they would not be so fond of showing their fear, there would not be so many actions brought against then.—Yours, &c.,

Stourbridge. JAMES BLAKEWAY.

"GLYCONES."

SIR,

I feel very much interested in the article on above subject by Mr. Kirk, in your issue of the 7th inst., and would like if Mr. Kirk would kindly let me have a little more information regarding the action of the medicine he has used with such marked success.

What action would a glycone have if constipation affected the bowels near the stomach?

Is the glycerine absorbed in the rectum, or is its action mechanical?

If Mr. Kirk will kindly let me have an answer to the above, he will confer a favour on

A STUDENT.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—"Live and let live." F. Talbot, Sir F. Fitz Wygram, T. M'Connell, T. Greaves, J. Blakeway, J. L. Webb, R. Rutherford, "Marathon," J. Malcolm, W. R. Davis.